

Louisiana Coastal Area

Water Resources Development Act of 2007

National Conference on Ecosystem Restoration
Baltimore, Maryland
August 2011

Gregory Miller
Chief, Plan Formulation Branch
New Orleans District
US Army Corps of Engineers



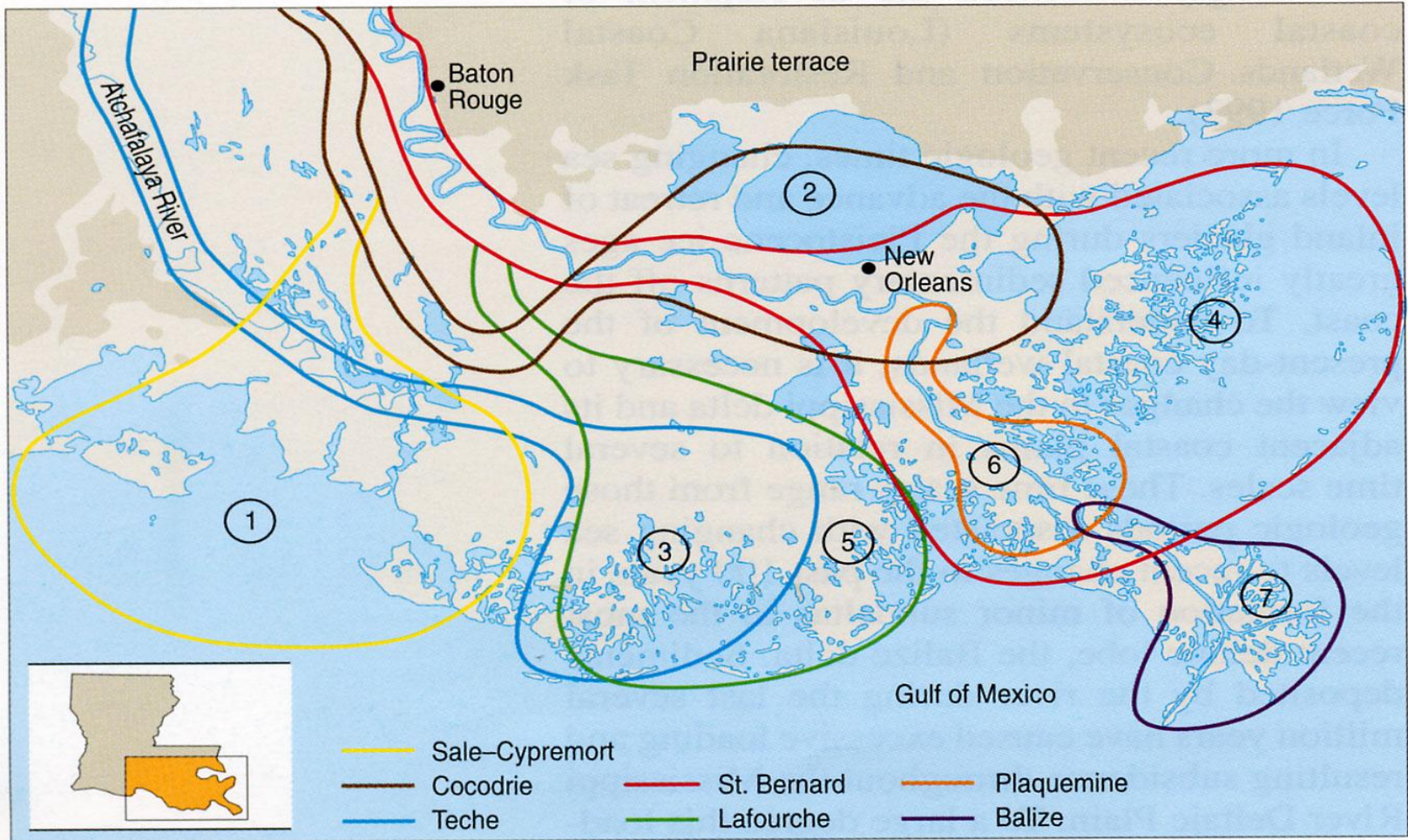
BUILDING STRONG®



Mississippi River Drainage Basin



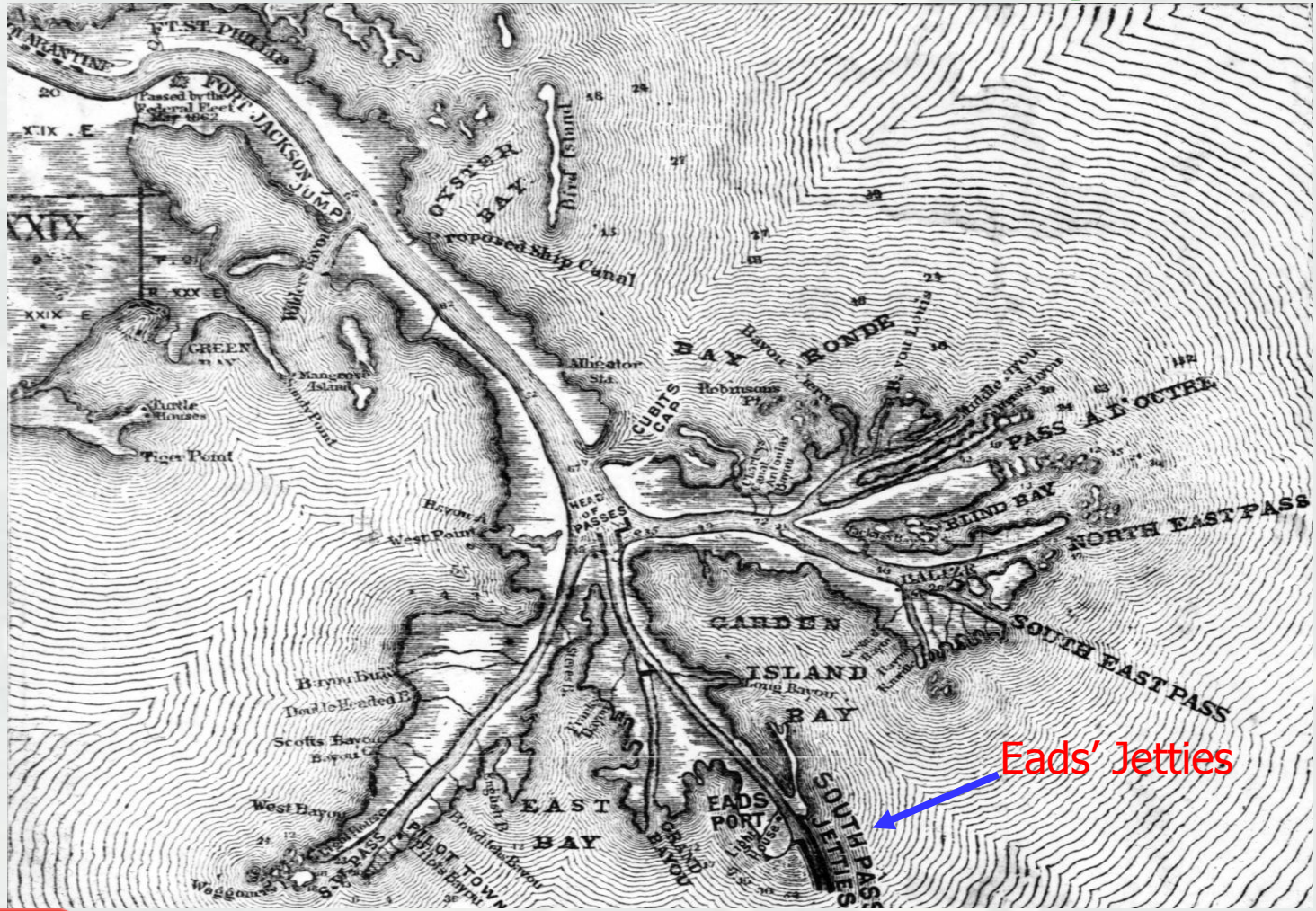
The Delta System



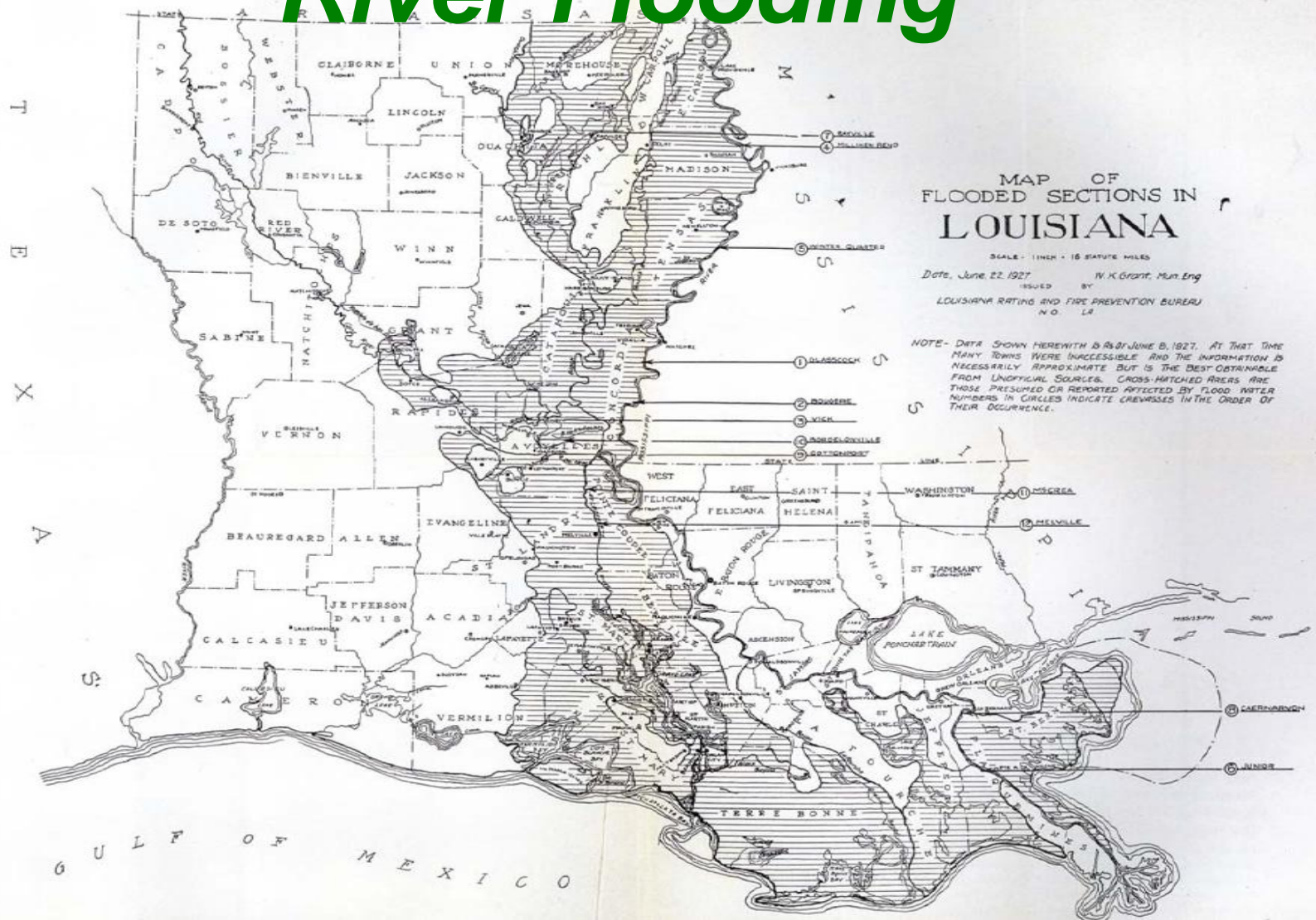
BUILDING STRONG®



Mississippi River Navigation



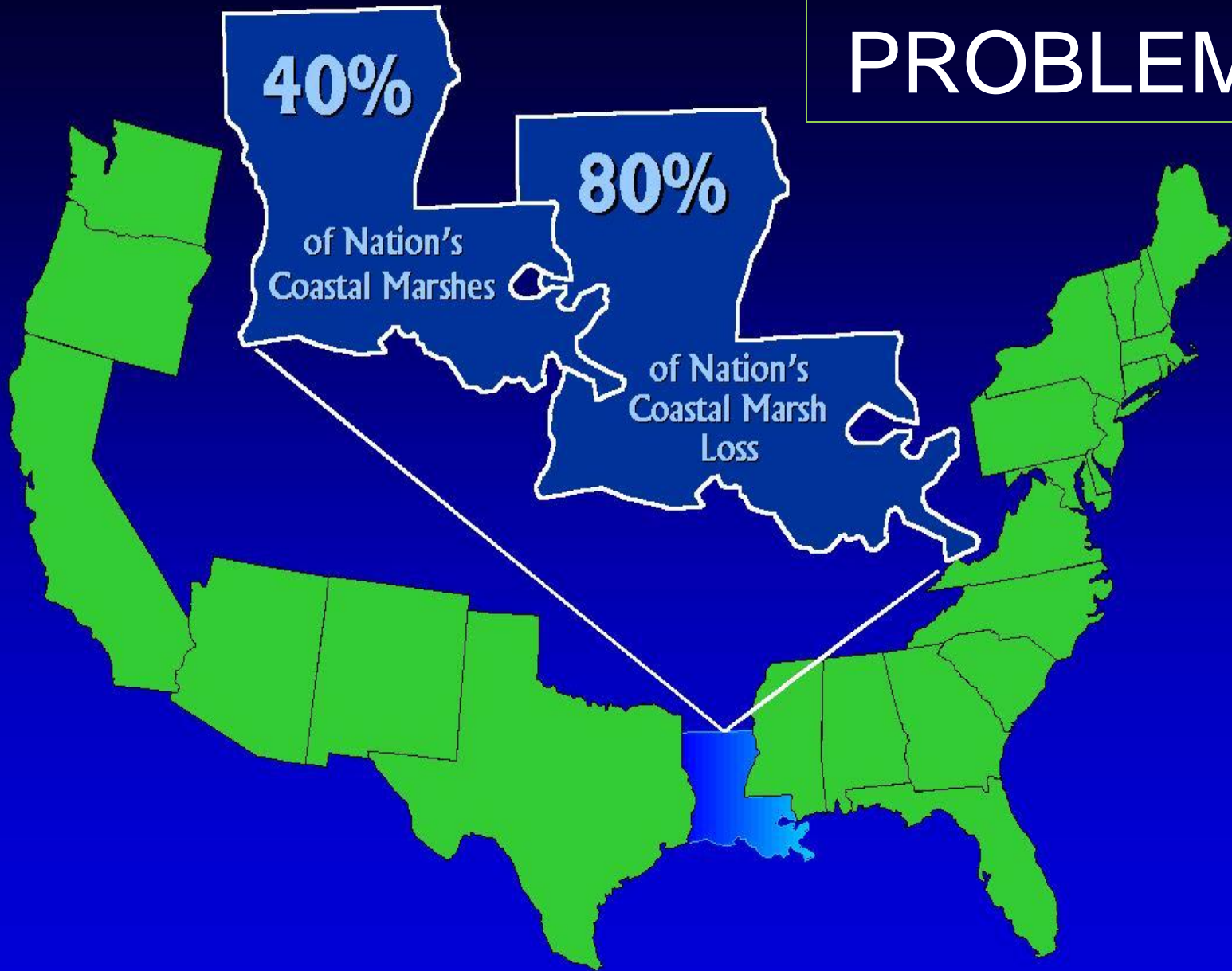
River Flooding



BUILDING STRONG®



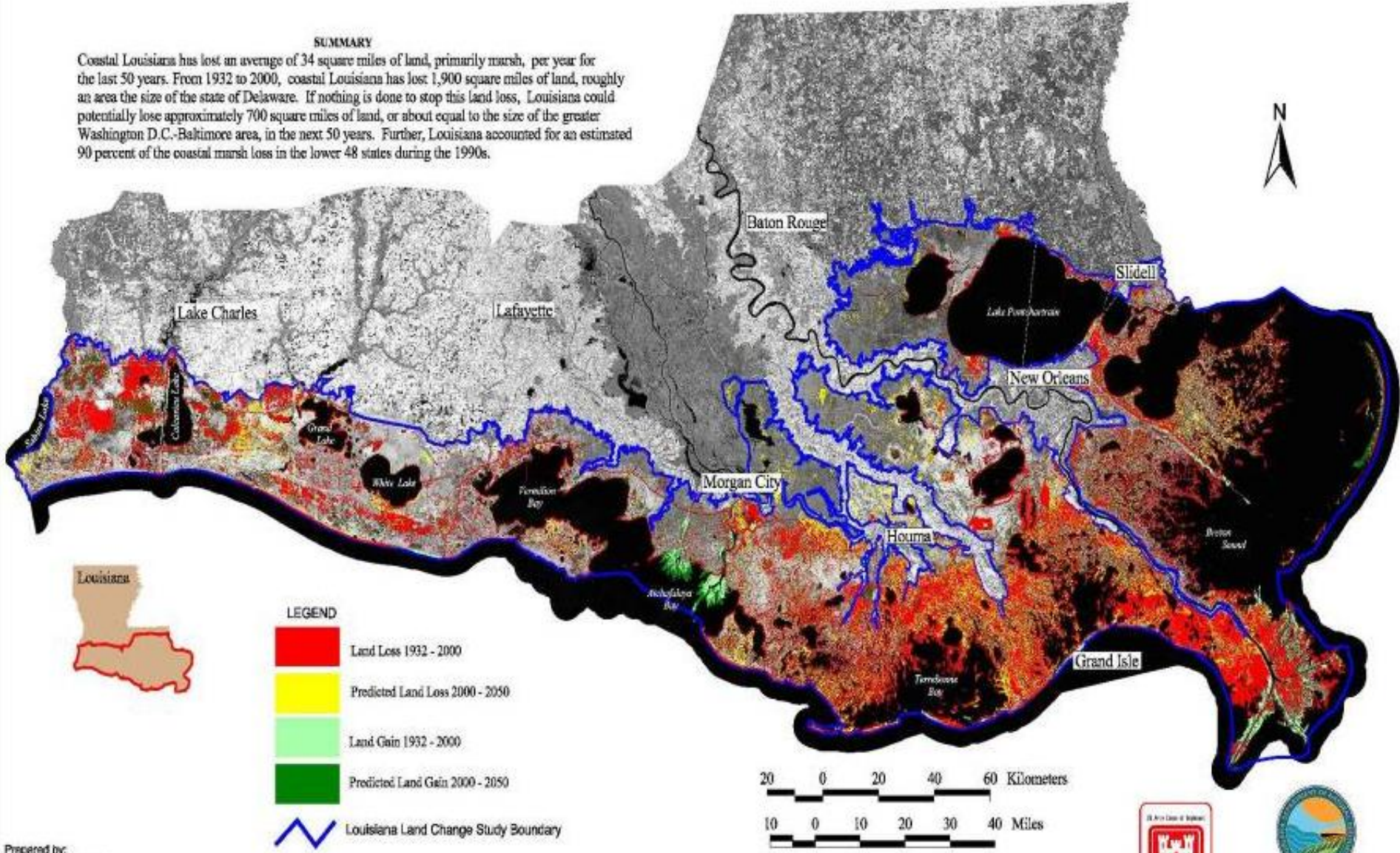
COASTAL PROBLEMS



100+ Years of Land Change for Coastal Louisiana

SUMMARY

Coastal Louisiana has lost an average of 34 square miles of land, primarily marsh, per year for the last 50 years. From 1932 to 2000, coastal Louisiana has lost 1,900 square miles of land, roughly an area the size of the state of Delaware. If nothing is done to stop this land loss, Louisiana could potentially lose approximately 700 square miles of land, or about equal to the size of the greater Washington D.C.-Baltimore area, in the next 50 years. Further, Louisiana accounted for an estimated 90 percent of the coastal marsh loss in the lower 48 states during the 1990s.



LEGEND

- Land Loss 1932 - 2000
- Predicted Land Loss 2000 - 2050
- Land Gain 1932 - 2000
- Predicted Land Gain 2000 - 2050
- Louisiana Land Change Study Boundary

Background is 2000 Thematic Mapper pancromatic band.



Empire Jetties



1951



1970



1985



2001



BUILDING STRONG®



Major Causes Of Wetland Loss

Barrier
Island
Degradation



Subsidence



Storms



Sea Level
Rise



Salt Water
Intrusion



Sediment
Reduction



Canals



Oil & Gas
Development



Levee
System



Resources at Risk

- Fisheries
 - ▶ 20% of US commercial harvest
 - ▶ Over one billion pounds landed annually
 - ▶ World class recreational fishery

- Energy Production
 - ▶ 27% of domestic offshore crude oil supply
 - ▶ 32% of domestic offshore natural gas
 - ▶ LOOP facility connected to 50% of refineries

- Ports and Shipping
 - ▶ Rank #1 nationally by tonnage
 - ▶ Lower Mississippi River is largest port complex in the world

- Wildlife and Waterfowl
 - ▶ Habitat for over 5 million migratory waterfowl
 - ▶ 70% of Mississippi Flyway waterfowl population



Louisiana Coastal Area 1967 Authority

Review reports of the Chief of Engineers on various Louisiana waterways with a view to determining the advisability of improvements or modifications to existing improvements in the coastal area of Louisiana in the interest of hurricane protection, prevention of saltwater intrusion, preservation of fish and wildlife, prevention of erosion, and related water resource purposes.”



LCA Chronology

- 1998 *Coast 2050 Plan completed under Coastal Wetlands Planning, Protection & Restoration Act (CWPPRA)*
- 1999 *Coast 2050 Plan adopted as 905b report to start Louisiana Coastal Area (LCA) feasibility study*
- 2001 *LCA feasibility study approach modified to consider comprehensive coast-wide restoration plan*
- 2004 *Administration provides guidance to shift focus to identify a “Near-term” LCA restoration plan*
- 2004 *Final LCA plan report recommends 15 critical near-term projects – 5 for conditional authorization & 10 for further study prior to authorization*
- 2005 *LCA Chief of Engineers Report signed on January 2005*
- 2007 *Water Resources Development Act (WRDA) of 2007 conditionally authorizes all 15 critical near-term projects in three groups of 5, 6, & 4 subject to varying report requirements and deadlines*
- 2008 *Feasibility cost share agreement signed with State of Louisiana for LCA WRDA Section 7006(e)(3) study*
- 2011 *LCA WRDA Section 7006(e)(3) report submission*



Louisiana Coastal Area 2007 Authority

- Chief of Engineers report completed in January 2005
 - ▶ Near-term Ecosystem Restoration Plan recommended
- Water Resources Development Act of 2007 authority
 - ▶ 5 construction projects
 - ▶ 10 feasibility studies
 - ▶ Beneficial use of dredged material program
 - ▶ Science and Technology program
 - ▶ 6 other major investigations
- Program implementation underway since 2008
 - ▶ 7 reports completed with construction recommendations
 - ▶ 7 feasibility studies or construction reports in progress
 - ▶ 6 projects ready for design phase



Louisiana Coastal Area Ecosystem Restoration

Critical restoration features:

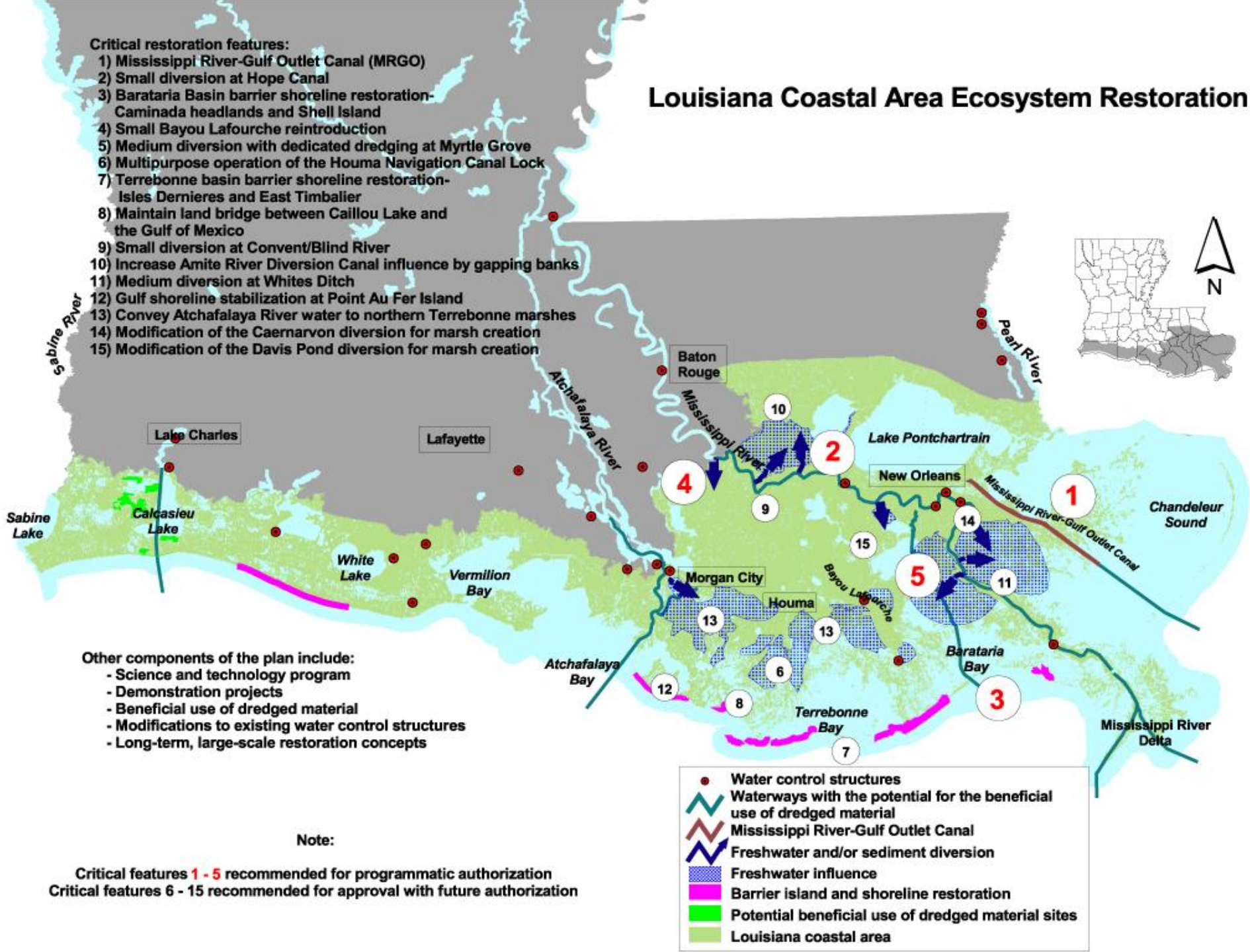
- 1) Mississippi River-Gulf Outlet Canal (MRGO)
- 2) Small diversion at Hope Canal
- 3) Barataria Basin barrier shoreline restoration-Caminada headlands and Shell Island
- 4) Small Bayou Lafourche reintroduction
- 5) Medium diversion with dedicated dredging at Myrtle Grove
- 6) Multipurpose operation of the Houma Navigation Canal Lock
- 7) Terrebonne basin barrier shoreline restoration-Isles Dernieres and East Timbalier
- 8) Maintain land bridge between Caillou Lake and the Gulf of Mexico
- 9) Small diversion at Convent/Blind River
- 10) Increase Amite River Diversion Canal influence by gapping banks
- 11) Medium diversion at Whites Ditch
- 12) Gulf shoreline stabilization at Point Au Fer Island
- 13) Convey Atchafalaya River water to northern Terrebonne marshes
- 14) Modification of the Caernarvon diversion for marsh creation
- 15) Modification of the Davis Pond diversion for marsh creation

Other components of the plan include:

- Science and technology program
- Demonstration projects
- Beneficial use of dredged material
- Modifications to existing water control structures
- Long-term, large-scale restoration concepts

Note:

Critical features 1 - 5 recommended for programmatic authorization
 Critical features 6 - 15 recommended for approval with future authorization



- Water control structures
- Waterways with the potential for the beneficial use of dredged material
- Mississippi River-Gulf Outlet Canal
- Freshwater and/or sediment diversion
- ▨ Freshwater influence
- Barrier island and shoreline restoration
- Potential beneficial use of dredged material sites
- Louisiana coastal area

Additional Information

<http://www.mvn.usace.army.mil/>

<http://www.lca.gov/>



BUILDING STRONG®

